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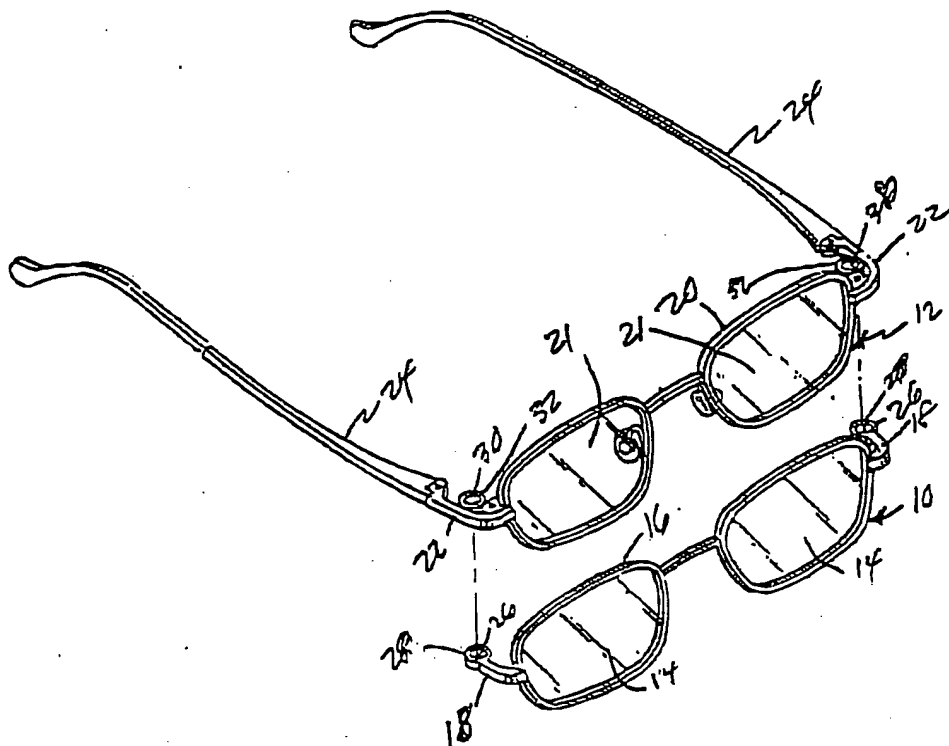
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 (71) REVOLUTION EYEWEAR, US

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(54) METHODES ET APPAREILS DE FIXATION DE LUNETTES
 AUXILIAIRES

(54) AUXILIARY EYEWEAR ATTACHMENT METHODS AND
 APPARATUS



(57) A method and apparatus for mounting auxiliary eyeglasses on conventional eyeglasses in which magnets are attached to appendages on the auxiliary eyeglasses mating with magnets mounted on the temple extensions of conventional eyeglasses. The magnets on the auxiliary eyeglasses are mounted in sockets formed on the appendages of the auxiliary eyeglasses such that their maximum magnetic force is oriented vertically or parallel to the plane of the conventional eyeglass frame. The appendages on the auxiliary eyeglass frame fit beneath the temple extensions on the conventional eyeglasses frame to hold the auxiliary frames in place solely by the magnetic attractive force. The orientation of the magnets is such that the maximum magnetic force resists any downward movement of the auxiliary eyeglasses on the conventional eyeglasses when installed. In a modification of the embodiment, a clip is attached to or formed on the bridge of the auxiliary eyeglasses for fitting over the bridge of the conventional eyeglasses. In yet another embodiment, clips are formed on the frame of the auxiliary lens to fit over the frame of the conventional eyeglasses. Magnets are embedded in the bridge of the auxiliary eyeglasses that mate with complementary magnets in the bridge of the conventional eyeglasses when the bridge is slid beneath the bridge of the conventional eyeglasses.



TITLE: AUXILIARY EYEWEAR ATTACHMENT METHODS AND APPARATUS**BACKGROUND OF THE INVENTION****1. Field of the Invention**

This invention relates to auxiliary eyewear attachment methods and apparatus, such as clip-on eyewear, and more particular relates to an auxiliary eye wear for attaching auxiliary sunglasses to conventional eyeglasses.

2. Background Information

Auxiliary eyewear to convert conventional eyeglasses to sunglasses are very popular. They allow the user to usually avoid the need for two separate prescription lenses. They can also be used, but less frequently, to attach auxiliary eyewear that can change the prescription of lenses. The more common use, however, is to add tinted lenses to conventional eyeglasses.

A number of different designs are available for auxiliary eyewear including clip-on eyewear, as well as auxiliary eyewear attachment using magnets. One method of attaching auxiliary eyewear is by clips. A method of attaching auxiliary eyewear by clips is shown and described in U.S. Application No. 08/510,797 filed August 3, 1995 to the same inventor as the invention disclosed herein and incorporated herein by reference. Another patent describing a clip-on type of sunglasses is disclosed and described in U.S. Patent No. 5,696,571 issued December 9, 1997

to Spencer et al. In these devices auxiliary eyeglasses are
attached to eyeglasses by a conventional clip system with one
clipping engaging the temple while other clips engage the
conventional frame.

A newer and very popular method of attaching eyeglasses is
by using magnets. One such method is disclosed and described in
U.S. Patent No. 4,070,105 of Meeker. In the Meeker patent the
conventional frame includes a magnetic material secured around
the peripheral portion facilitating attachment of auxiliary
eyeglasses to the conventional eyeglass frame.

Another method of attaching auxiliary eyeglasses using
magnets is disclosed in U.S. Patent No. 5,416,537 of Sadler
having magnets secured to temporal portions of a conventional
frame that mate with similar magnets in auxiliary eyeglass
frames. In the Meeker and Sadler patents the magnets are
embedded in portions of the frames in a vertical orientation for
mating with similar magnets in the auxiliary eyeglasses. A
problem with this type of arrangement is that the auxiliary
eyeglasses are held in place in front of the conventional
eyeglasses only by the strength of the magnets. There are no
supporting members to prevent the auxiliary eyeglasses from
moving vertically relative to the conventional eyeglass frame.
Therefore, when the auxiliary eyeglasses are used in some
strenuous activity such as jogging or exercising they can slide
off and become detached from the conventional frame.

A design that solves this problem by having magnets in

auxiliary eyeglass extensions is disclosed and described in the
prior art, U.S. Patent No. 5,568,207. In this patent the problem of the
eyeglasses sliding vertically and coming off the conventional
eyeglasses is solved by extensions on the auxiliary eyeglasses
having magnets that extend over (i.e. above) hinge connections
for the temples of the conventional eyeglasses. Magnets in the
hinge connections mate with magnets in the extensions to hold
the utility eyeglasses in place in front of the conventional
eyeglasses. The extensions fitting over (i.e. above) the hinge
portions of the conventional eyeglasses prevent the frames from
moving downward. It was thought that this combination of the
extension being above the temple connection in combination with
the magnet prevents the auxiliary eyeglasses from moving
downward relative to the conventional eyeglasses and being
dislodged during strenuous activity. That is, the patent
describes the prior art as being unable to provide a practical
solution to attaching auxiliary eyeglasses to conventional
eyeglasses with magnets alone.

The problem with the eyeglasses disclosed and described in
U.S. Patent No. 5,568,207 is that the auxiliary eyeglass
extensions must be carefully placed above the temple hinge
connections. This makes it little more difficult to attach the
auxiliary frames to be sure that the extensions are placed
carefully above the hinge connections of the conventional
eyeglass. In most cases a wearer has to remove his conventional
eyeglasses to attach the auxiliary lenses.

1 It is, therefore, one object of the present invention to
2 provide an improved method and apparatus for attaching auxiliary
3 eyeglasses to conventional eyeglasses.

4 Another object of the present invention is to provide an
5 improved method and apparatus for attaching auxiliary eyeglasses
6 to conventional eyeglasses with magnets alone without any need
7 for other support.

8 Yet another object of the present invention is to provide a
9 method of attaching auxiliary eyeglasses to conventional
10 eyeglasses by appendages having magnets which fit below and mate
11 with similar magnets in the conventional eyeglass extensions for
12 attaching eyeglass temples.

13 Still another object of the present invention is to provide
14 an improved magnetic attachment of auxiliary eyeglasses to
15 conventional eyeglasses with magnets that are oriented to
16 maximize the magnetic force to prevent vertical or downward
17 movement of the auxiliary eyeglasses.

18 Still another object of the present invention is to provide
19 an auxiliary eyeglass magnetic connection having magnets that
20 are oriented horizontally to maximize the magnetic force in the
21 vertical direction.

22 Still another object of the present invention is to provide
23 an auxiliary eyeglass magnetic attachment that includes
24 additional supporting clips, if desired.

25 Yet another object of the present invention is to provide
26 auxiliary eyeglass magnetic attachment that includes a clip that

1 conveniently fits over the bridge of conventional eyeglass
2 frame.

3 BRIEF DESCRIPTION OF THE INVENTION

4 The purpose of the present invention is to provide an
5 improved auxiliary eyeglass attachment method and apparatus that
6 has a secure attachment by use of magnets that effectively
7 prevents the auxiliary eyeglasses from becoming detached from
8 the conventional eyeglass without a need for additional support.

9 In the preferred embodiment of the invention the auxiliary
10 eyeglasses are attached to conventional eyeglasses by magnets in
11 a manner that prevents any downward or vertical movement that
12 might cause the auxiliary eyeglasses to become detached. The
13 method of attaching with magnets disclosed herein also provides
14 a much easier method of securing the auxiliary glasses to the
15 conventional eyeglasses as will be described in greater detail
16 hereinafter.

17 It was thought, for example, as disclosed in the patent of
18 Chao, Patent No. 5,568,207, that some support was needed to
19 prevent the auxiliary eyeglasses from "moving downward" and
20 coming off the conventional eyeglasses. However, what was not
21 recognized was that magnets have a very strong attraction in a
22 direction perpendicular to their axis. That is, with very
23 strong magnets it is difficult to separate them by pulling them
24 straight apart. Usually to separate them, particularly when
25 they are very strong magnets, is by sliding them in a direction
26 parallel to their mating surfaces. The reason for this is that

1 the magnetic force is stronger in a direction perpendicular to
2 the surface (i.e. the poles) of the magnets than it is to a
3 direction parallel to the surface. The inventor of the
4 auxiliary eyeglasses disclosed herein discovered that because of
5 this principle correctly oriented magnets can securely hold
6 auxiliary eyeglasses on conventional frames without the need for
7 additional support. The key is to orient the magnets so that
8 any vertical force applied to the auxiliary frames will be
9 perpendicular to the plane of the magnets.

10 To achieve this unique construction of appendages on
11 opposite sides of the auxiliary frames including a socket for
12 receiving magnets that are oriented with the plane of the
13 magnets horizontal and the axis (i.e. poles) vertical or
14 parallel to the auxiliary eyeglass frame. Complementary mating
15 magnets are mounted in sockets on the hinge extensions on the
16 conventional eyeglasses which are also oriented with the plane
17 of the magnets horizontal and their axis (i.e. poles) vertical
18 or approximately parallel to the plane of the conventional
19 eyeglass.

20 This arrangement means the auxiliary eyeglasses may be
21 easily mounted on the conventional eyeglasses without any
22 fumbling or searching. The user doesn't have to feel with your
23 fingers or remove the eyeglasses to be sure that the auxiliary
24 eyeglass appendages are carefully aligned over the temple
25 mounting extensions as with the arrangement described in U.S.
26 Patent No. 5,568,207 referred to hereinabove. You simply place

1 the auxiliary eyeglasses against the conventional eyeglasses
2 with a slight upward motion and they easily attach when the
3 magnets come into close proximity. This arrangement makes for a
4 securely attached auxiliary eyeglasses and frame that is simple
5 and easy to use without the difficulties with the other
6 auxiliary eyeglass designs.

7 One can easily see the auxiliary eyeglasses approaching the
8 conventional eyeglasses with the appendages on the auxiliary
9 eyeglasses below the temple of the conventional eyeglass frame.
10 Then with a very slight upward movement the magnets attract and
11 the auxiliary eyeglass frame is firmly attached. This can be
12 done simply and easily with one hand without any feeling or
13 fumbling that previous arrangements required. The orientation
14 is nearly automatic and doesn't require the more careful
15 alignment that is required of other magnetically fastened
16 auxiliary eyeglasses.

17 In an optional but less preferred embodiment, clips can
18 provide additional support if desired. This, for example,
19 might be used where very small magnets are used to attach
20 the eyeglasses to the frames. In this embodiment a combination
21 of the clip shown and described in applicant's prior
22 Application Serial No. 08/510,797 filed August 3, 1995 or
23 similar to that shown in the other patents can be attached to
24 the auxiliary eyeglass frame. A clip would be incorporated into
25 the bridge of the auxiliary eyeglass frame which would fit over
26 and engage the conventional eyeglass bridge. This would lock

1 the auxiliary eyeglass frame on the conventional eyeglass frame
2 with the magnets holding the sides in place.

3 In still another optional but less preferred embodiment, a
4 magnet could be provided beneath the bridge of a conventional
5 eyeglasses to mate with a similar magnet on top of the bridge of
6 the auxiliary eyeglass frame. In this embodiment clips would be
7 attached on top of or in the temple region of the auxiliary
8 eyeglass frame that would fit over and engage the conventional
9 eyeglass frame. In this embodiment the auxiliary eyeglass would
10 be mounted by sliding the clips over the conventional eyeglass
11 frame then pushing down on the bridge so that the magnet on the
12 bridge slides under the bridge of the conventional eyeglass
13 frame mating the magnets. The magnets in the bridge hold the
14 auxiliary eyeglasses onto the frame of the conventional
15 eyeglasses with the clips securely locking it in place.

16 The above and other novel features of the invention will be
17 more fully understood from the following detailed description
18 and the accompanying drawings, in which:

19 BRIEF DESCRIPTION OF THE DRAWINGS

20 Figure 1 is an isometric view illustrating the method and
21 apparatus for attaching an auxiliary eyeglass frame to
22 conventional eyeglasses with magnets alone.

23 Figure 2 is an isometric view illustrating the auxiliary
24 eyeglass frame attached to a conventional eyeglass frame with
25 magnets alone.

26 Figure 3 illustrates the connection of the auxiliary

1 eyeglass frame by magnets embedded in an appendage mating with
2 similar magnets embedded in the temple extension of a
3 conventional eyeglass frame.

4 Figure 4 illustrates an optional embodiment in which a clip
5 formed on the bridge of the auxiliary eyeglass frame fits over
6 and engages the bridge on the conventional eyeglass frame.

7 Figure 5 shows the embodiment of Figure 4 mounted on a
8 conventional eyeglass frame.

9 Figure 6 is a sectional view taken at 6-6 of Figure 5.

10 Figure 7 is another embodiment in which magnets are
11 embedded in the bridge of the auxiliary eyeglass frame for
12 mating with magnets mounted beneath the bridge of a conventional
13 eyeglass frame and including clips for locking the auxiliary
14 eyeglass frame onto the conventional eyeglass frame.

15 Figure 8 illustrates the method of mounting the auxiliary
16 eyeglass frame of Figure 7 on a conventional eye glasses.

17 Figure 9 illustrates the embodiment of Figure 7 with the
18 auxiliary eyeglass firmly secured on a conventional eyeglass
19 frame.

20 Figure 10 is a sectional view taken at 10-10 of Figure 9.

21 DETAILED DESCRIPTION OF THE INVENTION

22 A unique method and construction for attaching auxiliary
23 eyeglasses 10 to conventional eyeglasses 12 is illustrated in
24 Figures 1 through 3. Auxiliary eyeglasses 10 are most commonly
25 tinted eyeglasses to convert conventional eyeglasses 12 to
26 sunglasses but also can have different prescription lenses.

1 Auxiliary eyeglasses 10 has lenses 14 mounted in a frame 16
2 having appendages 18 extending rearward on either side of frame
3 16. Conventional eyeglasses 12 have a frame 20 with a bridge 22
4 with temple extensions 22 on either side of frame 20 for
5 attaching temples 24 to the frames.

6 In the auxiliary eyeglasses of the prior art magnets are
7 either embedded in frame 20 or in extension on auxiliary
8 eyeglasses that extend over or above the temple extensions 22 of
9 the eyeglass frame 20. With the prior art constructions of
10 magnets embedded in frames 20 the plane of the magnets is
11 vertical or parallel to the lenses facilitating detachment of
12 the auxiliary eyeglasses by a downward shearing force. To solve
13 this problem the auxiliary eyeglasses of U.S. Patent No.
14 5,568,207 proposed putting magnets in auxiliary eyeglass
15 extensions that fit over or above the temple mounting extensions
16 on the eyeglass frame. It was thought that some support in
17 addition to the magnets was needed to prevent the auxiliary
18 eyeglasses from becoming detached. While this is a satisfactory
19 solution it is not the best solution. The auxiliary eyeglasses
20 must be carefully positioned above the conventional eyeglass
21 frame to be sure the extensions are above the temples.

22 The present invention not only provides a solution to the
23 potential detachment or dislodging of auxiliary eyeglass frames
24 10 but simplifies the method of mounting the auxiliary eyeglass
25 with minimum fuss. This is achieved by inserting magnets 26 in
26 sockets 28 in appendages 18 attached to auxiliary eyeglass frame

16. Complementary magnets 30 are mounted in sockets 32 attached to conventional eyeglass frame 10 temple extensions 22. Preferably magnets 26 and 30 are at least four millimeters (4 mm) in diameter.

An important and critical feature of the invention is the orientation of magnets 26 and 30, which is shown more clearly in sectional view of Figure 3. Generally magnets have plane surfaces and axis. In this case magnets 26 and 30 are shown as cylindrical having an axis 34 that is vertically oriented and is approximately parallel to auxiliary frame 16 and conventional eyeglass frame 20. This means the maximum magnetic attractive force is vertically oriented along axis 34. Accordingly the maximum magnet force of magnets 26 and 30 is vertically oriented to resist dislodging of auxiliary eyeglass frame 10 by a downward movement. It was found that by mounting magnets 26 and 30 approximately 4 mm in diameter having a strong magnetic force vertically oriented is sufficient to hold auxiliary eyeglass frame 10 in place and prevent downward movement. Thus, auxiliary eyeglass frame 10 is securely mounted on conventional eyeglasses 12 and will not easily dislodged by strenuous activity occurring in sports or exercising.

Shearing forces along interface 36 are minimal and would more likely cause conventional eyeglasses 12 to fall off the wearer before auxiliary eyeglasses 10 would be dislodged. This construction not only improves the attachment of auxiliary eyeglasses 10 but also makes it easy for them to be mounted as

1 illustrated in Figure 2. Auxiliary eyeglasses 10 can merely be
2 brought up to conventional eyeglasses 12 with a slight upward
3 motion until magnet 26 is attracted to magnet 30 and locks in
4 place. Thus, they can easily be oriented and mounted on
5 conventional eyeglasses 12 without the need to remove
6 conventional eyeglasses from the wearer.

7 An optional but less preferred embodiment is illustrated in
8 Figures 4 through 6. In this embodiment auxiliary eyeglasses
9 10' have appendages 18 with magnets 26 installed in sockets 28
10 as before. Magnets 26 mate with magnets 30 mounted in sockets
11 32 on conventional temple extensions 22 on conventional eyeglass
12 frame 20 as before. However, to provide additional security and
13 hold auxiliary frame 10' on conventional eyeglass frame 20,
14 bridge 38 of auxiliary eyeglass frame 40 is formed with a clip
15 42 constructed to extend over and mount on conventional eyeglass
16 bridge 44. Clip 42 will provide additional support for
17 auxiliary eyeglasses 10' for use in extremely strenuous
18 activity, for example, in cases where sports activities are such
19 that conventional eyeglasses 12 are secured to the head of the
20 wearer with straps that wrap around the back of the head. As
21 shown in Figure 6 clip 42 formed on auxiliary eyeglass bridge 38
22 fits securely over bridge 44 on conventional eyeglass frame 20.

23 To mount the auxiliary eyeglasses 10' of Figure 4, they are
24 placed against the conventional eyeglasses 12 and slid gently
25 upward until magnet 26 mates with magnet 30. Clip 42 formed in
26 bridge 38 of auxiliary frame 40 is then slipped over a

conventional eyeglass bridge 44 securely mounting eyeglasses 10'
or conventional eyeglasses 10.

Another embodiment utilizing the combination of magnets and clips to securely mount auxiliary eyeglasses on conventional eyeglasses is illustrated in Figure 7 through 10. In this embodiment auxiliary eyeglasses 50 are formed with clips 52 mounted on the eyeglass frame 54 on the upper quadrant of the frame. Magnets 56 are secured in bridge 58 joining auxiliary eyeglass lenses 60. Conventional eyeglasses 62 are formed with frame 64 having a bridge 66 having complementary magnets 68 mounted in the bridge. In this embodiment auxiliary eyeglasses 50 are mounted on conventional eyeglasses 62 by the combination and opposing forces of clips 52 fitting over frame 70 of conventional eyeglasses 62 and bridge 58 fitting beneath bridge 66 so that magnets 56 in bridge 66 mate.

The installation of auxiliary eyeglasses 50 on conventional eyeglasses 62 is illustrated in Figures 8 and 9. Clips 52 on the upper quadrant of auxiliary lens frame 54 fit over conventional eyeglass frame 70 as shown in Figure 8. Auxiliary eyeglass bridge 58 is sufficiently flexible that bridge 58 can be pushed beneath bridge 66 on conventional eyeglass frame 62 allowing magnets 56 to mate with magnets 68 embedded in conventional eyeglass bridge 66. Thus, auxiliary eyeglasses 50 are securely mounted on conventional eyeglasses 62 as illustrated in Figure 9 and held in place by the opposing forces of clips 52 and magnets 56 and 68. Again, this construction

1 would perhaps be best where extremely strenuous activity is
2 involved that requires conventional eyeglasses 62 to be secured
3 on the head of the wearer with a strap.

4 However, for most sports activities and exercising the
5 construction disclosed and described with respect to Figures 1
6 through 3 is sufficient to mount auxiliary eyeglasses 10 on
7 conventional frames 12. The key feature here is the orientation
8 of magnets 26 and 30 so that the maximum magnetic attractive
9 force along their axis (i.e. poles) 34 is vertically oriented or
10 parallel with conventional eyeglass frame 20. In most cases
11 only a substantial shearing force parallel to the interface 36
12 between magnets 26 and 30 could dislodge auxiliary eyeglasses 10
13 but then that force would probably dislodge conventional
14 eyeglasses 12 from the head of the wearer.

15 Thus there has been disclosed novel and unique methods for
16 attaching auxiliary eyeglass to conventional eyeglasses. In one
17 embodiment, magnets having an orientation such that their
18 maximum magnetic force is vertical or parallel with conventional
19 eyeglass frame is sufficient to hold the auxiliary eyeglasses
20 securely on the conventional eyeglasses.

21 In another less preferred embodiment a clip is attached to
22 or integrally formed on the bridge of the auxiliary eyeglass
23 frame for fitting over and securing the auxiliary eyeglasses to
24 the bridge of the conventional eyeglasses.

25 In yet a third but less preferred embodiment a combination
26 of clips and magnets are employed to mount auxiliary eyeglasses

1 on conventional eyeglasses. In this third embodiment clips are
2 formed in an upper quadrant on the frame of the auxiliary
3 eyeglasses that fit over the frame of the conventional
4 eyeglasses. Magnets embedded in the bridge of the conventional
5 eyeglasses mate with magnets embedded in the bridge of the
6 auxiliary eyeglasses such as the auxiliary eyeglass bridge fits
7 beneath the conventional eyeglass bridge.

8 This invention is not to be limited by the embodiment shown
9 in the drawings and described in the description which is given
10 by way of example and not of limitation, but only in accordance
11 with the scope of the appended claims.
12
13
14
15
16

WHAT IS CLAIMED IS:

1. A method of attaching auxiliary eyeglasses to conventional eyeglasses comprising;

a plurality of magnets mounted on said conventional eyeglasses;

a plurality of magnets mounted on said auxiliary eyeglasses adopted to fit beneath and mate with said plurality of magnets on said conventional eyeglasses;

said plurality of magnets on said conventional eyeglasses and said plurality of magnets on said auxiliary eyeglasses being mounted to orient the maximum magnet attractive force vertically approximately parallel to the plane of lenses in said conventional eyeglasses;

whereby said auxiliary eyeglasses are prevented from moving downward and being displaced when mounted on said conventional eyeglasses by said attractive force between said magnets.

2. The method according to Claim 1 comprising mounting said plurality of magnets in said conventional eyeglasses in temple extensions of a frame of said conventional eyeglasses; and mounting said plurality of magnets on said auxiliary eyeglasses in appendages that extend from apposite sides of a frame of said auxiliary eyeglasses.

3. The method according to Claim 2 comprising mounting a plurality of cylindrical magnets with their axis vertically oriented parallel to the lenses of said conventional eyeglasses; and mounting a plurality of mating cylindrical magnets with

their axis vertically oriented parallel to the lenses of said auxiliary eyeglasses whereby the maximum magnetic attractive force prevents detachment of said auxiliary eyeglasses from said conventional eyeglasses by downward movement.

4. The method according to Claim 3 including forming clip means on a bridge of said auxiliary eyeglasses for fitting over a bridge of said conventional eyeglasses.

5. The method according to Claim 4 in which said clip means is integrally formed in said auxiliary eyeglass bridge.

6. Apparatus for attaching auxiliary eyeglasses to conventional eyeglasses comprising;

mounting means mounting a plurality of magnets on said conventional eyeglasses;

mounting means mounting a plurality of magnets on said auxiliary eyeglasses for mating beneath said plurality of magnets on said conventional eyeglasses;

said plurality of magnets on said conventional eyeglasses and said mounting plurality of magnets on said auxiliary eyeglasses being oriented such that the maximum magnetic attractive force between said magnets is oriented vertically parallel to lenses in said conventional eyeglasses;

whereby said plurality of magnets on said auxiliary eyeglasses when mated beneath said plurality of magnets on said conventional eyeglasses provides maximum resistance to downward movement of said auxiliary eyeglasses thereby preventing said

auxiliary eyeglasses from detaching from said conventional eyeglasses.

7. The apparatus according to Claim 6 in which said plurality of magnets on said conventional eyeglasses are attached to temple mounting extensions on a frame of said conventional eyeglasses; and said plurality of magnets on said auxiliary eyeglasses are mounted on appendages on said auxiliary eyeglasses adapted to fit beneath said temple extension on said frame of said conventional eyeglasses.

8. The apparatus according to Claim 7 in which said plurality of magnets on said conventional eyeglasses and said plurality of magnets on said auxiliary eyeglasses are cylindrical magnets having their axis oriented vertically parallel to lenses in said conventional eyeglasses and auxiliary eyeglasses respectively.

9. The apparatus according to Claim 8 including clip means on a bridge of said auxiliary eyeglasses adapted to fit over a bridge on said conventional eyeglasses to provide additional support to said auxiliary eyeglasses when mounted on said conventional eyeglasses.

10. The apparatus according to Claim 9 in which said clip is integrally formed on said bridge of said auxiliary eyeglasses.

11. Apparatus for mounting auxiliary eyeglasses on conventional eyeglasses comprising;

clip means formed on a frame of said auxiliary eyeglasses

adopted to fit on a frame of said conventional eyeglasses; and
magnetic means on a bridge of said conventional eyeglasses;
magnetic means on a bridge of said auxiliary eyeglasses
adapted to fit beneath and mate with said magnetic means on a
bridge of said conventional eyeglasses in opposition to said
clip means on said frame of said auxiliary eyeglasses;
whereby said clip means and magnetic means on said
auxiliary eyeglasses securely holds said auxiliary eyeglasses on
said conventional eyeglasses.

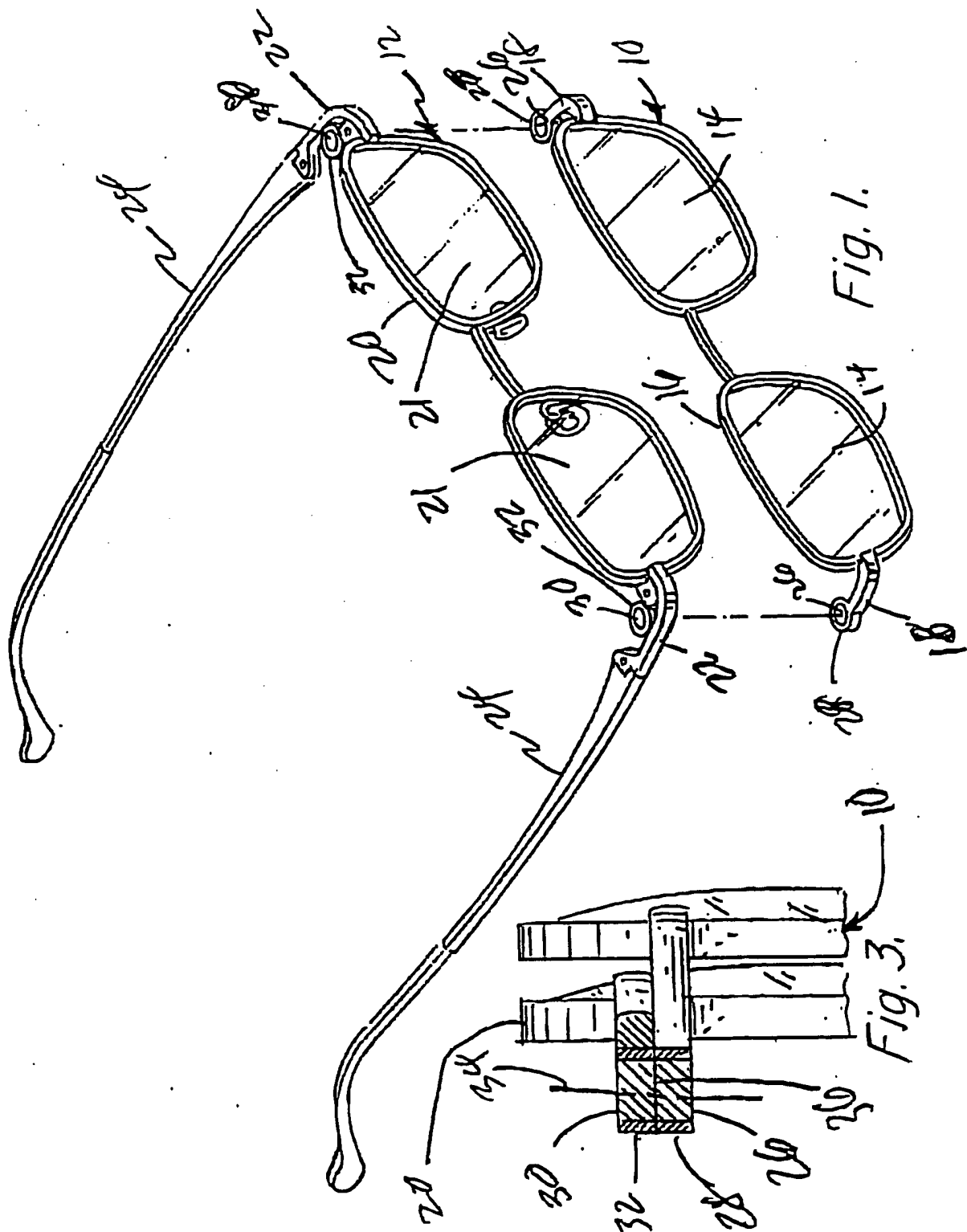
12. The apparatus according to Claim 11 in which said clip
means comprises a pair of clips mounted on an upper quadrant
edge of said auxiliary eyeglasses.

13. The apparatus according to Claim 11 in which said
magnetic means mounted in a bridge of said conventional
eyeglasses and said bridge of said auxiliary eyeglasses
comprises magnets embedded in said respective bridge of said
conventional eyeglasses and auxiliary eyeglasses.

14. The apparatus according to Claim 13 in which said
magnets embedded in said respective bridge of said conventional
eyeglasses and auxiliary eyeglasses comprises a pair of magnets.

ABSTRACT OF THE DISCLOSURE

A method and apparatus for mounting auxiliary eyeglasses on conventional eyeglasses in which magnets are attached to appendages on the auxiliary eyeglasses mating with magnets mounted on the temple extensions of conventional eyeglasses. The magnets on the auxiliary eyeglasses are mounted in sockets formed on the appendages of the auxiliary eyeglasses such that their maximum magnetic force is oriented vertically or parallel to the plane of the conventional eyeglass frame. The appendages on the auxiliary eyeglass frame fit beneath the temple extensions on the conventional eyeglasses frame to hold the auxiliary frames in place solely by the magnetic attractive force. The orientation of the magnets is such that the maximum magnetic force resists any downward movement of the auxiliary eyeglasses on the conventional eyeglasses when installed. In a modification of the embodiment, a clip is attached to or formed on the bridge of the auxiliary eyeglasses for fitting over the bridge of the conventional eyeglasses. In yet another embodiment, clips are formed on the frame of the auxiliary lens to fit over the frame of the conventional eyeglasses. Magnets are embedded in the bridge of the auxiliary eyeglasses that mate with complementary magnets in the bridge of the conventional eyeglasses when the bridge is slid beneath the bridge of the conventional eyeglasses.



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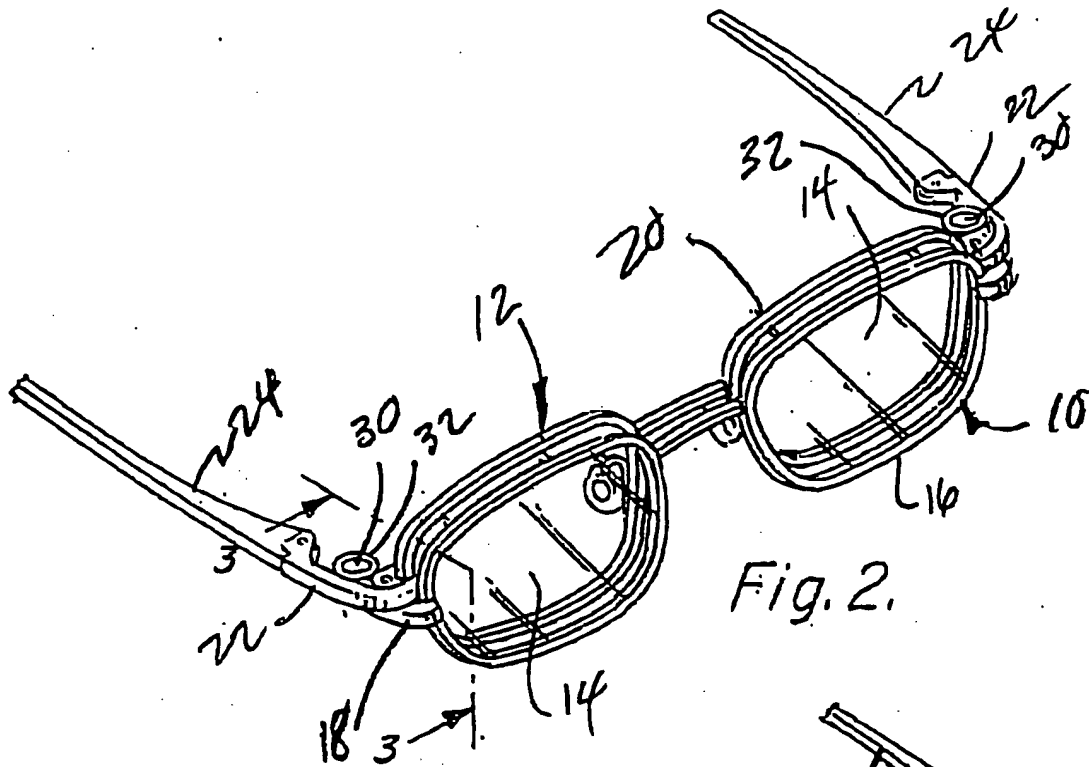


Fig. 2.

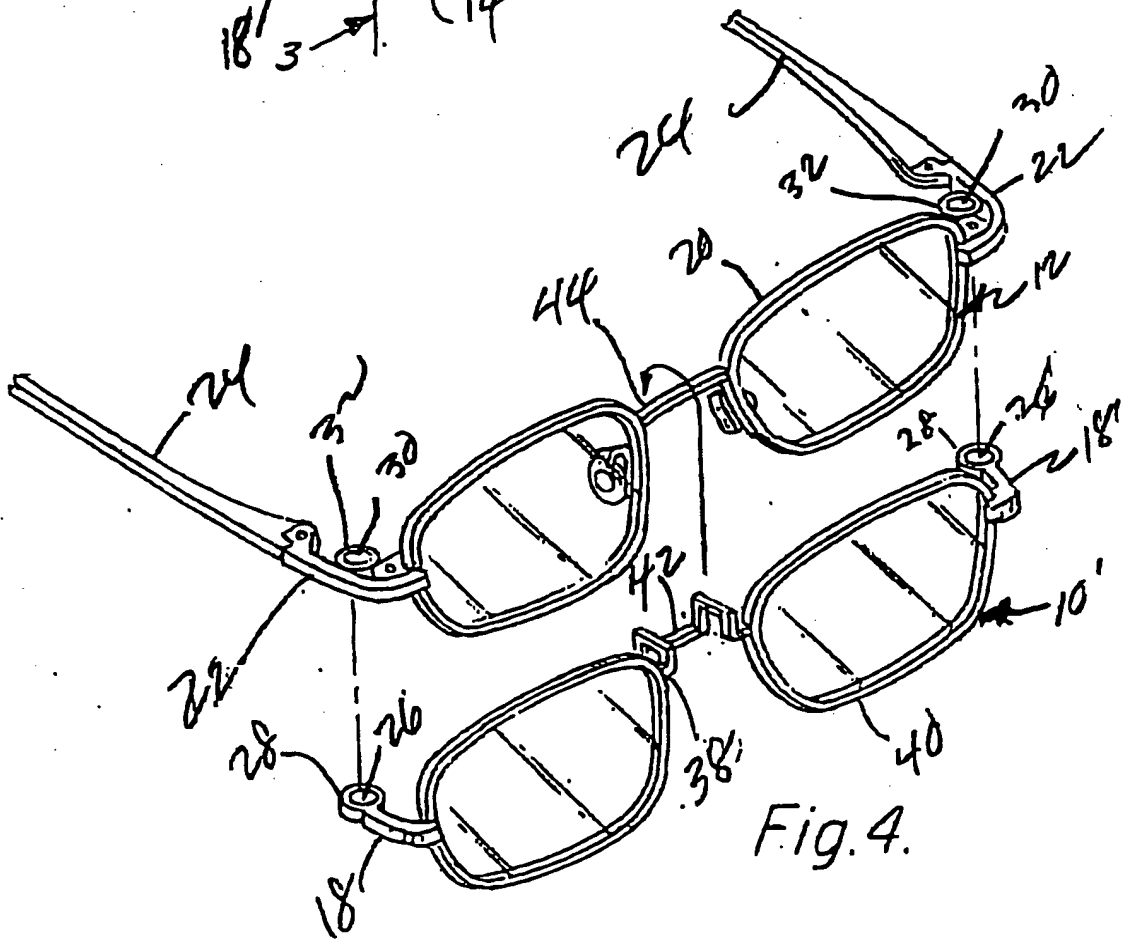


Fig. 4.

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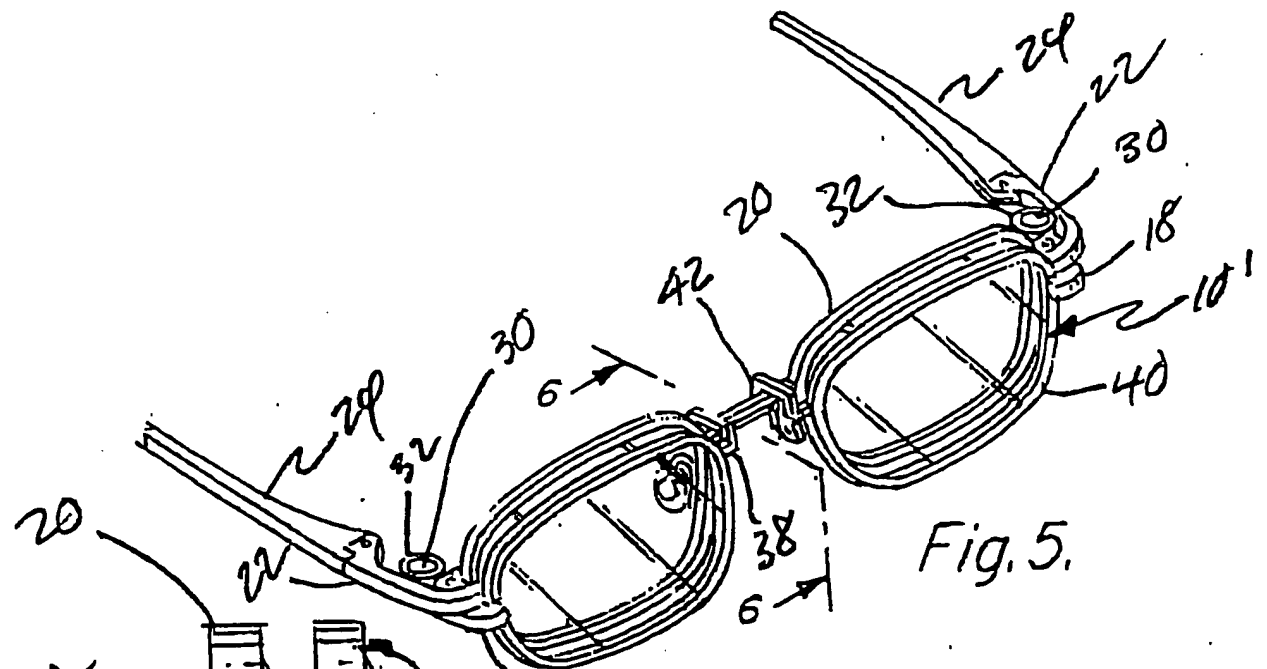


Fig. 5.

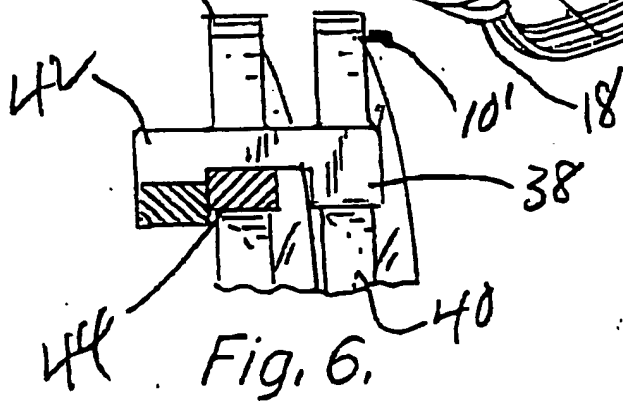


Fig. 6.

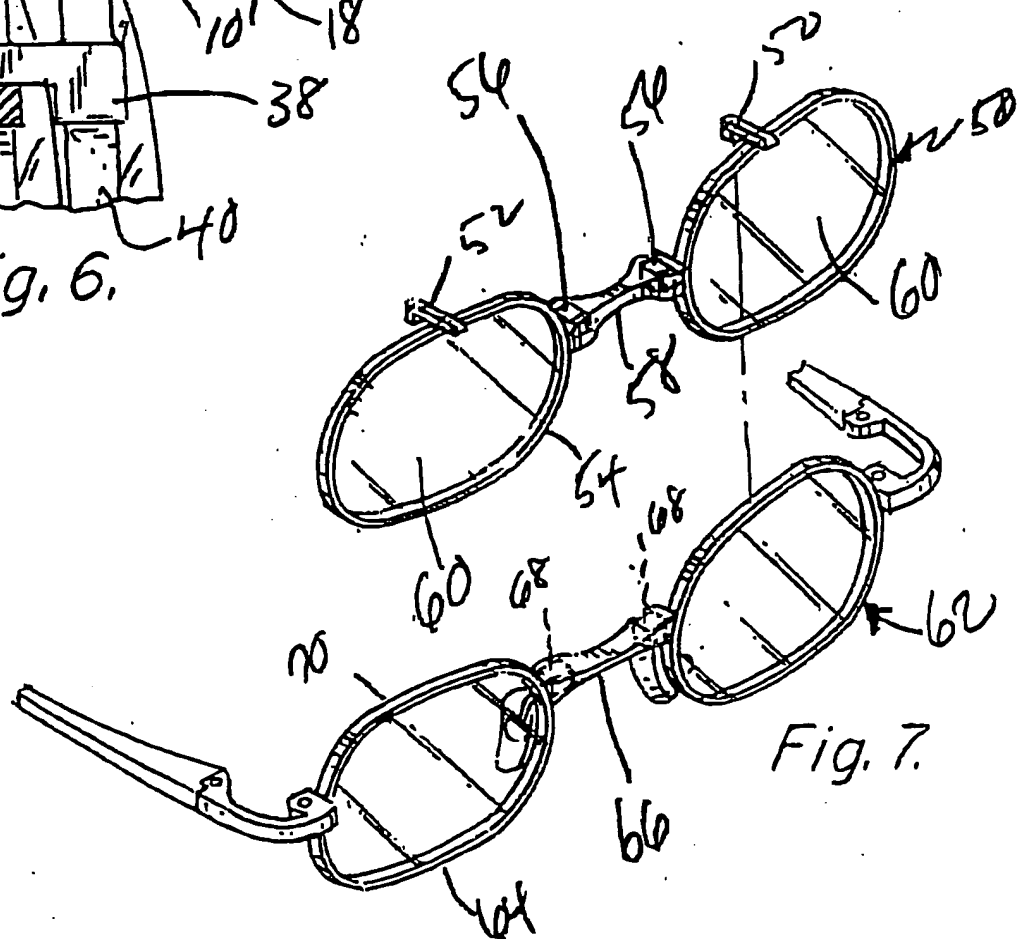
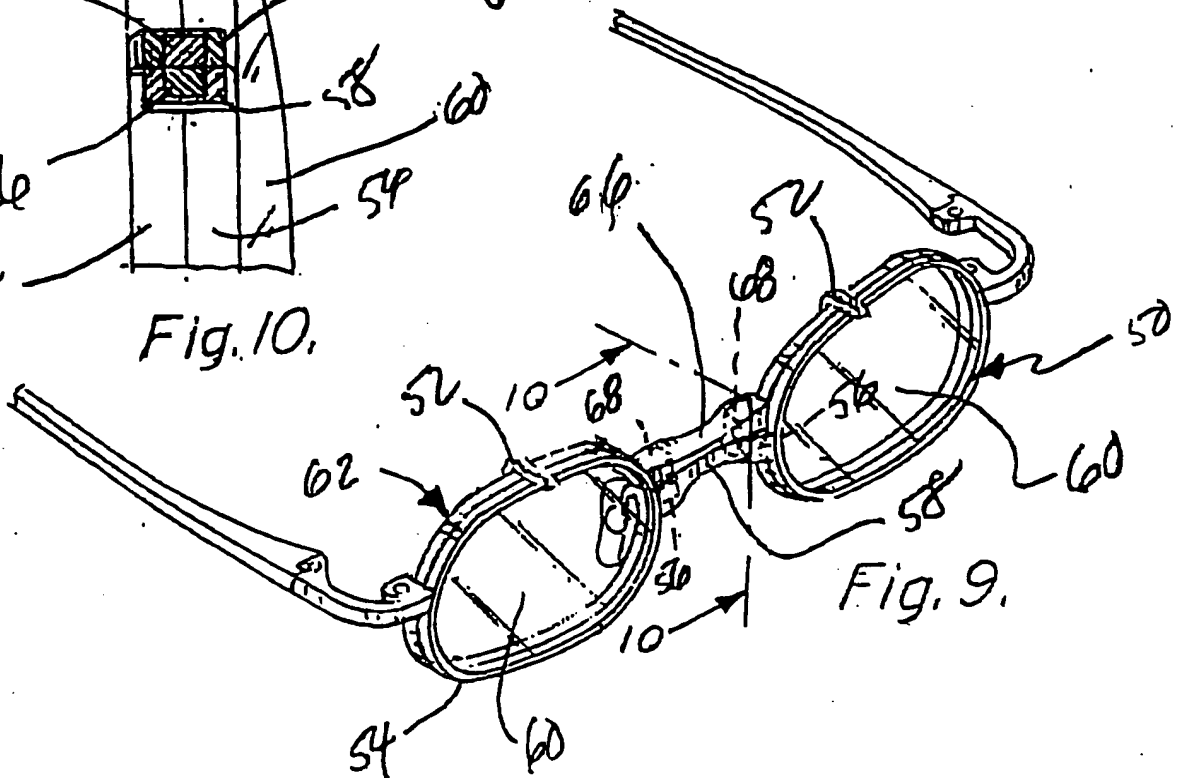
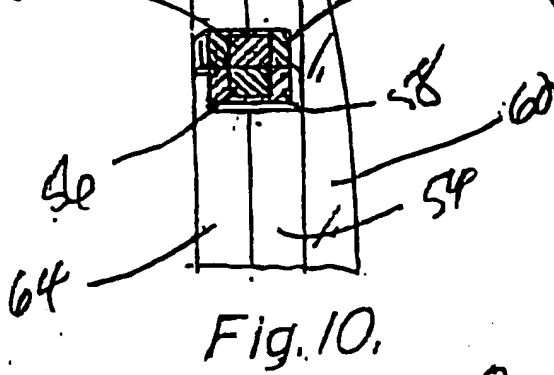
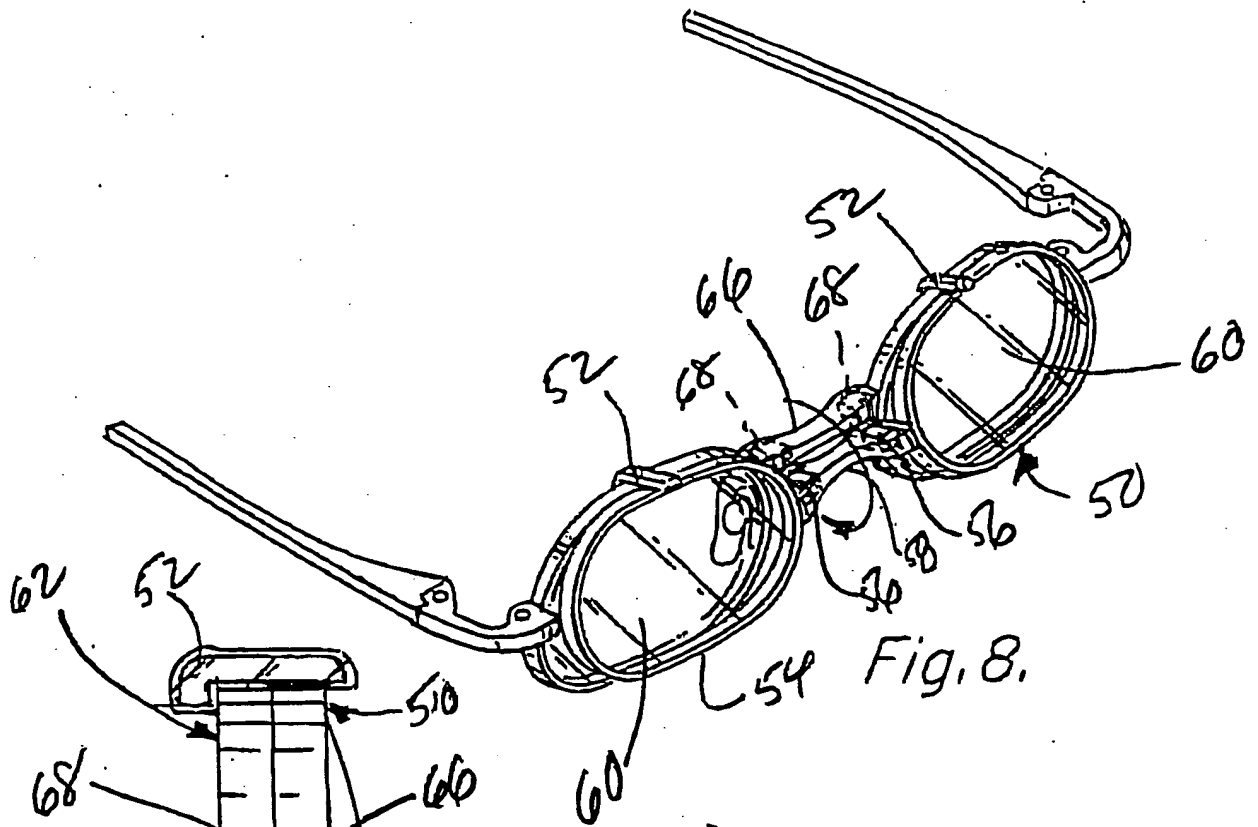


Fig. 7.

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